



H8

SEQUENCE LISTING

<110> Davis, Ronald W.

Vaillancourt, Peter

<120> Dimeric Fluorescent Polypeptides

<130> 25436/1652

<140> US 10/021,818

<141> 2001-12-13

<150> US 60/256,121

<151> 2000-12-15

<160> 8

<170> PatentIn version 3.1

<210> 1

<211> 720

<212> DNA

<213> Renilla reniformis

<400> 1

atggtgagta aacaaatatt gaagaacact ggattgcagg agatcatgtc gtttaaagtg	60
aatctggaag gtgtagtaaa caatcatgtg ttcacaatgg aagggtgtgg aaaaggaaat	120
attttattcg gaaaccaact ggttcagatt cgtgtcacia aaggggtccc gtttccattt	180
gcatttgata ttctctcacc agctttccaa tacggcaacc gtacattcac gaaatacccg	240
gaggatatat cagacttttt tatacaatca tttccagcgg gatttgtata cgaaagaacg	300
ttgcgttacg aagatggtgg actggttgaa atcgttcag atataaattt aatcgaggag	360
atgtttgtct acagagtggg atataaaggt agtaacttcc cgaatgatgg tccagtgatg	420
aagaagacaa tcacaggatt acaaccttcg ttcgaagttg tgtatatgaa cgatggcgtc	480
ttggttgggc aagtcattct tgtttataga ttaaactctg gcaaatttta ttcgtgtcac	540
atgagaacac tgatgaaatc aaagggtgta gtgaaggatt ttcccgaata ccatttcatt	600
caacatcggt tagagaagac tgatgtggaa gacggaggtt ttgttgagca acacgagacg	660

gccattgctc aactgacatc gctggggaaa ccacttgat ccttacacga atgggtttaa 720

<210> 2

<211> 238

<212> PRT

<213> Renilla reniformis

<400> 2

Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser

1 5 10 15

Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met

20 25 30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln

35 40 45

Ile Arg Val Thr Lys Gly Val Pro Leu Pro Phe Ala Phe Asp Ile Leu

50 55 60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu

65

70

75

80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr

85

90

95

Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg Ser

100

105

110

Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr Lys

115

120

125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile Thr

130

135

140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu

145

150

155

160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr

165

170

175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp

180

185

190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Asp Val

195

200

205

Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln Leu

210

215

220

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val

225

230

235

<210> 3

<211> 720

<212> DNA

<213> Artificial sequence

<220>

<223> R. reniformis GFP polynucleotide sequence adapted to humanize cod

on usage

<400> 3

atggtgagca agcagatcct gaagaacacc tgccctgcagg aggtgatgag ctacaagggtg	60
aacctggagg gcatcgtgaa caaccacgtg ttcaccatgg agggctgcgg caagggcaac	120
atcctgttcg gcaaccagct ggtgcagatc cgcgtgacca agggcgcccc cctgcccttc	180
gccttcgaca tcgtgagccc cgccttccag tacggcaacc gcaccttcac caagtacccc	240
aacgacatca gcgactactt catccagagc ttccccgcgg gttcatgta cgagcgcacc	300
ctgcgctacg aggacggcgg cctggtggag atccgcagcg acatcaacct gatcgaggac	360
aagttcgtgt accgcgtgga gtacaagggc agcaacttcc ccgacgacgg ccccgatgatg	420
cagaagacca tcctgggcat cgagcccagc ttcgaggcca tgtacatgaa caacggcgtg	480
ctggtgggcg aggtgatcct ggtgtacaag ctgaacagcg gcaagtacta cagctgccac	540
atgaagaccc tgatgaagag caagggcgtg gtgaaggagt tcccctccta ccacttcac	600
cagcaccgcc tggagaagac ctacgtggag gacggcggct tcgtggagca gcacgagacc	660
gccatgcccc agatgaccag catcggcaag cccctgggca gcctgcacga gtgggtgtaa	720

<210> 4

<211> 239

<212> PRT

<213> Artificial sequence

<220>

<223> Sequence of R. reniformis GFP polypeptide encoded by humanized R.
reniformis GFP polynucleotide sequence

<400> 4

Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met

1 5 10 15

Ser Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr

20 25 30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val

35 40 45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile

50 55 60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro

65

70

75

80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val

85

90

95

Thr Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg

100

105

110

Ser Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr

115

120

125

Lys Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile

130

135

140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val

145

150

155

160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe

165

170

175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys

180

185

190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr

195

200

205

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln

210

215

220

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val

225

230

235

<210> 5

<211> 10

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic peptide linker sequence

<400> 5

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser

1 5 10

<210> 6

<211> 15

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic linker peptide

<400> 6

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser

1 5 10 15

<210> 7

<211> 20

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic linker peptide

<400> 7

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly

1

5

10

15

Gly Gly Gly Ser

20

<210> 8

<211> 11

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic linker peptide

<400> 8

Arg Ala Arg Asp Pro Arg Val Pro Val Ala Thr

1

5

10